

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Tze-Liang Ying et al.

Application Serial No.: 09/247,974

Filed: 02/11/1999

For: Key-Hole Free Process for High Aspect Ratio Gap Filling With Reentrant Spacer

Patent No.: Unassigned

Issue Date: Unassigned

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

**CERTIFICATE UNDER 37 C.F.R. §3.73(b)
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION**

1. The assignee of the entire right, title and interest hereby seeks to take action in the PTO in this matter.

IDENTIFICATION OF ASSIGNEE

2. The assignee of this matter is:

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY

121 Park Ave 3
Science-Based Industrial Park
Hsin-Chu, Taiwan R.O.C.

PERSON AUTHORIZED TO SIGN

3. Daniel R. McClure
Attorney for Assignee

4. A chain of title from the inventor(s) to the current assignee is shown below:

a. From: Tze-Liang Ying, James Wu, Yu-Hua Lee, Wen-Chuan Chiang
To: Taiwan Semiconductor Manufacturing Company
Recorded in PTO: Reel: 9766 Frame: 0859

DECLARATIONS

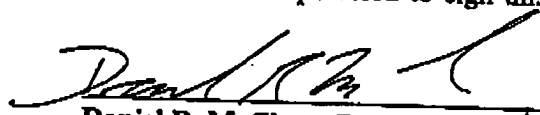
5. I, the undersigned, have reviewed all the documents in the chain of title of the

☒ application
☐ patent

matter identified above and, to the best of my knowledge and belief, title is in the assignee identified above.

6. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

7. I, the person signing below, aver that I am empowered to sign this statement on behalf of the assignee.


Daniel R. McClure, Reg. No. 38,962

Tel. No. 770-933-9500
Customer No.: 24504

THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.
100 Galleria Parkway, Suite 1750
Atlanta, Georgia 30339-5948

Docket No. 252016-1970

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:
Application No.:
Filed:
Title:
Commissioner for patents
Washington, D.C. 20231

POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST
(REVOCATION OF PRIOR POWERS)

As assignee of record of each of the patent applications listed in the table of attachment A,

REVOCATION OF PRIOR POWERS OF ATTORNEY
all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

NEW POWER OF ATTORNEY

the following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

000047390

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

Daniel R. McClure, Reg. No. 38,962
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.
100 Galleria Parkway, Suite 1750
Atlanta, Georgia 30339
770-933-9500

ASSIGNEE OF ENTIRE INTEREST
TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
8, Li-Hsin Rd. 6
Hsinchu Science Park
Hsinchu, Taiwan 300-77, R.O.C.

ASSIGNEE CERTIFICATION

The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Taiwan Semiconductor Manufacturing Company, Ltd., I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date:

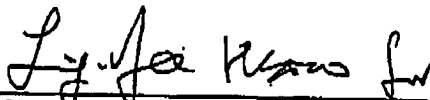
Nov 19, 2004

Chien-Wei Hsiao for
Chien-Wei (Chris) Chou
Director - Intellectual Property Division

Attachment A

No.	Serial No	TSMC No.	Application Title	Filing Date	Assignment (Reel/Frame)
1.	10/002,986	2001-0376	Contact hole printing by packing and unpacking	11/30/01	012354/0997
2.	10/437,374	2001-1014B	Method to improve the coupling ratio of top gate to floating gate in flash	05/13/03	Recorded 013218/0246 at the parent application USP 6,579,761
3.	10/602,229	2002-0695	Novel dual bit split gate flash memory	06/24/03	014228/0451
4.	10/411,346	2002-0536	Method of forming a metal-insulator-metal capacitor structure in a copper damascene process sequence	04/10/03	013982/0072
5.	09/310,256	1998-0574	Method to reduce particle level for dry-etch	05/12/99	009960/0894
6.	10/119,327	1998-0241BC	Method to increase coupling ratio of source to floating gate in split-gate flash	04/09/02	Recorded 009928/0175 at the parent application USP 6,159,801
7.	09/249,254	1998-0275	Method of making a metal-insulator-metal capacitor in the CMOS process	02/12/99	9768/0876
8.	09/247,974	1998-0518	Key-hole free process for high aspect ratio gap filling with reentrant spacer	02/11/99	9766/0859
9.	10/099,029	2001-0701	Cleaning process for phase shift masks	03/15/02	012713/0794
10.	10/823,148	1999-0014B	Novel multi-level (4state/2-bit) stacked gate flash memory cell	04/13/04	Recorded 013501/0898 at the parent application USP 6,734,055
11.	10/706,382	1999-0431	Novel method to reduce the fluorine contamination on the Al/Al-Cu pad by a post high cathod temperature plasma treatment	11/12/03	014700/0353
12.	09/783,381	2000-0171	Virtual customs broker by business-to-business electronic commerce link	02/15/01	011600/0778
13.	10/410,123	2000-0526	Novel exposure method for the contact hole	04/09/03	013959/0569
14.	10/786,798	2003-0294	Space process to prevent the reverse tunneling in split gate flash	02/25/04	015032/0533
15.	10/623,907	2000-0299C	High fMAX deep submicron MOSFET	07/18/03	Recorded 012111/0905 at the parent application USP 6,613,623
16.	10/443,359	2002-0162	Water soluble negative tone photoresist	05/22/03	014109/0454

Date: Nov. 19, 2004


 Chien-Wei (Chris) Chou
 Director - Intellectual Property Division

Serial No.: 09/247,974

Filed: 02/11/1999

Patent No.:

Issued:

Applicant: Yze-Liang Ying et al.

Title: Key-Hole Free Process for High Aspect Ratio Gap Filling With Reentrant Spacer

Docket No.: 252016-2310

C/M Date: 12/02/2004

EM No.:

Due Date:

PATENT AND TRADEMARK OFFICE
STAMP HEREON ACKNOWLEDGES
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- ☒ Power of Attorney
- ☐ Preliminary Amendment
- ☐ Small Entity Status Claimed
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- ☐ Petition for EOT to:
- ☐ Claim of Priority & Sub. Cert. Copy
of Foreign Application
- ☒ Other: Certificate Under 37 CFR §3.73(b)

USPTO STAMP



- ☐ Request to Rescind Non-Pub.
- ☐ Petition to Make Special
- ☐ Status Inquiry
- ☐ Notice of Appeal
- ☐ Appeal Brief (In Triplicate)
- ☐ Request for Refund
- ☐ Request for Correction F/R
- ☐ Notice of Continuation Applic.
- ☐ Issue Fee Trx. ☐ In Dupl.
- ☐ Sheets of Drawings
- ☐ Formal ☐ Informal
- ☐ Letter/Trx. To Draftsman
- ☐ Prior to NOA ☐ W/ NOA
- ☐ Request for Cert. Of Correct.
- ☐ Certificate of Correction x 2
- ☐ Maintenance Fee Transmittal
- ☐ 3.5 ☐ 7.5 ☐ 11.5
- ☐ in duplicate

Person Mailing: ETS

Responsible Atty: DRM